

## **CLAIMS OF THE INVENTION:**

1. An apparatus for making coal fuel comprising a retort substantially conical in shape comprising feeding means further comprising control means, heating means for heating an annular tube encompassing a base of said heated portion and a cooling portion disposed below said heated portion and means for communicating herewith by closeable hatch means, said cooling portion further comprising cooling means.
2. An apparatus for making coal fuel as set forth in Claim 1 further comprising heat scavenging means.
3. An apparatus for making coal fuel as set forth in Claim 2 wherein said retort comprises continuous feeding means.
4. An apparatus for making coal fuel as set forth in Claim 1 wherein said retort ranges in temperature between 250°C and 950°C in said heated portion.
5. An apparatus for making coal fuel as set forth in Claim 1 wherein said retort ranges in temperature between 400°C and 300°C in said cooling portion.
6. An apparatus for making coal fuel as set forth in Claim 2 wherein said scavenging means comprises means for capturing heated gas flowing upward out of said retort, means for scrubbing said gas, means for cooling said gas back to said heating means to reduce energy consumption, further comprising heat exchange means for capturing waste heat from said cooling portion of said retort and supplementing energy in part with said waste heat.
7. An apparatus for making coal fuel as set forth in Claim 5 further comprising means for capturing hydrocarbon liquor from vapor condensed from said retort gas.